The beginnings of a revolution in pre-registration pain education

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Published in:
Pain and Rehabilitation: The Journal of Physiotherapy Pain Association

Publication date:
2018

Document Version
Author accepted manuscript

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It is well-established that Chronic Pain (CP) presents a significant healthcare and societal challenge. CP affects an estimated one third of the population of the UK, approximately 28 million adults (1,2) and represents around 15% of consultations in primary care (3). Additionally, low back and neck pain has been identified in the top 10 diseases in the Global Burden of Disease Study (2010) and the highest number of disability-adjusted life years (DALYs) globally (4).

Pain is a complex condition to manage; it can have a major impact on individuals and their families and exerts a major burden on healthcare and on society. It is essential, on both a humanitarian and clinical effectiveness level, that healthcare professionals are provided with the education required to assess and manage pain in the patients they care for (5).

Recent large-scale surveys have clearly identified inadequate education, as well as inappropriate attitudes and beliefs of staff, to be a significant contributing factor in the 'woeful inadequacies' of pain management, both internationally (6) and in the curricula of healthcare professionals in the UK (7) and across Europe (8). In 2009, the Chief Medical Officer (CMO) report highlighted that teaching at undergraduate level in particular is 'patchy and inconsistent', and called for the inclusion of training in CP in the curricula of all healthcare professionals. The evidence available suggests that pain is not a significant element in the education of many healthcare professionals, being described as 'not sufficient to cover the needs of the graduate entering practice' (6).

In the UK, a survey of ten higher education institutions providing health profession education across eight healthcare professions found that education on pain in many current undergraduate courses comprised less than 1% of the overall curriculum (7). The survey also found that teaching on pain is often delivered piecemeal as part of other topics and is rarely taught as a discrete element, with wide variations in the pain content of the curriculum between different institutions. Also, treatment of pain requires a multidisciplinary approach, but the evidence suggests that undergraduates learn about pain management in a fragmented manner, often in isolation from other professional groups (7).

It is established that pain is a problem and that current levels of pre-registration education appears to be inadequate. What is not known however, is to what extent do healthcare professionals have knowledge about pain and confidence in managing people in pain on graduation?

Our group of pain clinicians and academics recently piloted a newly-developed questionnaire aimed at assessing pain knowledge, understanding and confidence in healthcare profession students, the Pain Understanding and Confidence Questionniare (PUnCQ). We conducted a cross-sectional survey of all final year pre-registration healthcare students in Scotland including physiotherapy, occupational therapy, medicine, nursing, dentistry, pharmacy and podiatry. Approximately 100 students responded (approximately 10% of those surveyed) representation from 6 healthcare professions and 5 different universities.

Understanding and confidence related to pain management was measured using PUnCQ and attitudes and beliefs by the Pain Attitudes and Belief Scale (PABS). Generally, levels of understanding were satisfactory with > 50% correct for all but 2 aspects: 1) when to refer for further investigations (17-23%) and 2) how to identify red flags (41-40%). The largest percentage of correct answers (>85%) in relation to a patient in a vignette: 1) helping the patient develop an understanding of her pain; 2) encouraging self-management strategies; 3) when to refer to a psychologist and 4) how important it is to ask her to rate the severity of pain.

Healthcare professional students rated their confidence as moderate (mean ratings of 4 to 7/10). Aspects of care they were most confident about were: 1) describing and explaining pain; 2) assessment and onward referral; 3) social factors that can affect pain experience; 4) providing pacing and self-management advice and 5) signposting to further information. They were least confident however about 1) describing the neurophysiology of pain; 2) discussing theories of pain and 3) the World Health Organisation (WHO) analgesic ladder.

Participants understanding of pain was found to be positively correlated with mean ratings of confidence (r = .300, p = .002) and negatively correlated with PABS biomedical scores (r = -.416, p < .001).

The results from this study suggest that final year, pre-registration healthcare students generally have a good understanding of most of the main concepts relating to pain management. However, they are only moderately confident about using this knowledge and understanding.

The findings of this cross-sectional questionnaire study must be interpreted with caution. Chiefly the response rate was approximately 10% and the questionnaire used to gather the information is not validated. Future research should employ methods aimed at increasing the response rate and work is already underway to explore the validity of the PUnCQ.

The challenge of enhancing pain education within pre-registration healthcare degrees is significant. There are numerous important and contemporary topics competing for space within healthcare curricula. Additionally, each regulatory and professional body naturally requires adherence to different standards of education and proficiency. Carr et al (9) have identified strategies for integrating pain education into undergraduate education including local pain champions, creating a team, and using a bio-psycho-social approach. Further exploration of the perspectives of those designing and delivering the curriculum is required to establish what could be included, how this might be best delivered and at what point in the student journey.

There are a number of examples of good practice relating to established pain education (10–12) and further well-constructed trials investigating different modes of delivery (13). Just like in clinical practice it is important to recognise that 'one size will not fit all' and thus different institutions and professions will require a model of pain education tailored to their specific needs. Nevertheless, there may be common resources or evidence-based approaches that can be adopted and customised. It is important also to note the key role of practicing clinicians in the team approach to improving pain education in pre-registration programmes (9). This is essential to achieve the interprofessional, scenario-led, enquiry-based learning that has been shown to be effective.

Fundamentally, we must prepare and equip the healthcare practitioners of the future to effectively manage the ever-growing healthcare and societal burden of chronic pain. It is established that pain education content in the majority of current healthcare programmes is insufficient despite published guidelines, curricula and examples of good practice in the literature. The immediate challenge therefore is how can we best implement the changes required locally, nationally, and internationally? I suppose one of the of the first tasks might be to work out how best to engage others in this conversation rather than preaching to the converted……

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